

# **EXHIBIT 1**

**James R. Bress**  
**Curriculum Vitae**

---

---

**Professional Summary**

Mr. Bress has over 35 years of experience in the telecommunications industry. His work experience covers a broad range of disciplines including the development of requirements and standards for digital (VoIP), mobile, and analog telephone equipment, network systems and interfaces, product design consulting, user interfaces engineering, developing and operating telecommunications testing laboratories including VoIP, mobile, and analog equipment, design and development of testing systems including hardware and software development, software architectures and database system design, database system management, software code development, hardware architectures and development, new telecommunications services development, and the delivery of telecommunications training seminars (US and internationally).

Mr. Bress has in-depth knowledge and experience with telecommunications protocols and systems including SS7/AIN (Advanced Intelligent Network), PSTN, VoIP, Unified Communications (UC), mobile, and IMS.

Mr. Bress has over 15 years of experience in intellectual property matters including expert consulting and witnessing for patent litigation (plaintiffs and defendants), patent prosecution, testifying in court, testifying in deposition, development of expert reports and declarations for infringement, non-infringement, validity, and invalidity, claim charts analysis, claim construction, inter partes review (IPR), ex parte and inter partes re-examination, and the development of intellectual property and the filing of patents. Mr. Bress also has litigation experience related to the Telecommunications Consumer Protection Act (TCPA).

Mr. Bress has extensive experience working with multi-national engineering teams in the telecommunications product development process from design conception, software and hardware architectures, prototyping, design testing, production, and quality assurance.

Mr. Bress has in-depth experience with technologies related to hearing loss including interfacing with hearing loss special interest groups, amplified telephone equipment developers, manufacturers and suppliers, hearing aid manufacturers, and audiologists. Mr. Bress was the prime contributor to the ANSI/TIA-4953 standard for amplified telephone performance and this work has included consulting and presentations to state (PUC) and federal (FCC) agencies focused on accessibility and equipment for the hearing impaired.

Mr. Bress was (and continues to be) the chief architect for the development of several complex telecommunications device test systems including hardware, software, user interfaces, system integration, and networking protocol interfaces.

Mr. Bress is the named inventor for patents issued while at Bellcore, AST, and as a private consultant. He is the author of many Bellcore requirements and recommendations documents and the prime contributor to many American National Standards Institute / Telecommunication Industry Association (ANSI/TIA) standards. Mr. Bress has provided leadership at TIA continuously starting in 1998, and he is currently serving as chairman of the TIA TR-41 engineering committee for communications products performance and accessibility standards development.

Mr. Bress is a cum laude graduate of the University of North Carolina with a BS in Electrical Engineering, and a summa cum laude graduate of the California Institute of Technology with a MS in Electrical Engineering.

**James R. Bress**  
**Curriculum Vitae**

## **Employment Summary**

Mr. Bress is currently the president of AST Technology Labs Inc. which he founded in 1995, providing product design consulting and testing services to internationally based customers including telephone service providers, product certification programs, and product and semiconductor manufacturers.

Prior to founding AST, Mr. Bress was employed from 1985 to 1995 at Bell Communications Research (Bellcore) as a Member of the Technical Staff (MTS) and Senior Systems Engineer. Mr. Bress's work at Bellcore was focused on new services development including prototype terminals (including smart phones) development, network signaling and protocols, operations, and features requirements, and the development and operation of telecommunications testing laboratories including hardware and software development.

Since 2005 Mr. Bress has been an expert consultant and expert witness for intellectual property litigation and prosecution cases.

## **Expertise**

- |   |   |
|---|---|
| ▪ Voice Over IP (VoIP) Signaling and Features     | ▪ Telecommunications Network Architectures    |
| ▪ Digital Telephony Signaling, Features, Services | ▪ US Telecommunications Infrastructure        |
| ▪ Mobile Telephony Signaling Features, Services   | ▪ Telecommunications Services Development     |
| ▪ Analog Telephony Signaling Features, Services   | ▪ IP (SIP / SDP, IMS)                         |
| ▪ Computer Telephony Devices                      | ▪ Advanced Intelligent Network (AIN)          |
| ▪ Caller-ID Technologies                          | ▪ ISDN  |
| ▪ Unified Communications (UC) Technologies        | ▪ POTS  |
| ▪ Telephony Audio Systems                         | ▪ Electronics and Control Systems             |
| ▪ Voicemail Systems                               | ▪ Communications Protocols                    |
| ▪ Telephone Answering Machines                    | ▪ Test Systems Design and Development         |
| ▪ Acoustics and Audio Technologies                | ▪ Analog and Digital Hardware                 |
| ▪ Amplified Telephones and Hearing Loss           | ▪ Product Development Processes               |
| ▪ Communications Accessibility                    | ▪ RF Communications                           |
| ▪ Telephone Feature Implementation                | ▪ Software Architectures and Development      |
| ▪ Telephone and Gateway Testing                   | ▪ User interfaces design                      |
| ▪ Webcam Testing                                  | ▪ Database Systems Development and Management |
| ▪ Video Set-Top-Box Testing                       | ▪ Systems Development and Integration         |
| ▪ Telecommunications Standards                    | ▪ Product Design Specifications Development   |

**James R. Bress**  
**Curriculum Vitae**

## Education - University

<u>Year</u>	<u>College or University</u>	<u>Degree</u>
1987	California Institute of Technology	M.S. Electrical Engineering (GPA: 4.0 / 4.0)
1985	University of North Carolina at Charlotte	B.S. Electrical Engineering (GPA: 3.6 / 4.0)

## Education - Other

“Bellcore University” classes including:

- SS7 (Signaling System #7)
- Computer networking: Architectures
- Computer networking: Token Ring
- Computer networking: Ethernet / IP
- ‘C’ language programming (multiple classes)
- X.25 protocols
- OSI protocols
- ISDN
- Databases
- Multiple internal operations classes

## Professional Experience

### SUMMARY OF ROLES AND POSITIONS

- President / CTO / founder: AST Technology Labs (telecom product testing and design) (1995-present)
- Expert consultant and witness (2005 to present)
- Bellcore Member of the Technical Staff (MTS) and senior engineer (1985 – 1995)
- Chairman TIA (Telecommunications Industry Association) TR-41 standards committee (2015-present)
- Chairman / vice-chairman TIA TR-41.3 standards subcommittee (2000 – 2015)
- Chairman Bluetooth® SIG High Quality Audio Study Group (2017 – present)
- Member Bluetooth® SIG (Bluetooth® requirements development) (2014 – present)
- Member IEEE P1931.1 working group (IoT Roof computing standards development) (2017 – present)
- Member CEA (Consumer Electronics Association) R6 WG20 Personal Sound Amplification Working Group (2014 – present)

**James R. Bress**  
**Curriculum Vitae**

---

**DETAILS:**

From: 2005  
To: Present  
Organization: James Bress  
Title: Expert Witness and Expert Consultant  
Summary: See separate section below: "Litigation and Intellectual Property Expert Experience"

From: 1995  
To: Present  
Organization: James Bress, Consultant  
Title: Engineering Consultant and Expert  
Summary: In addition to activities and responsibilities related to Mr. Bress's position as President and CTO at AST Technology Labs Inc. (see below), Mr. Bress has been a contractor / consultant for projects which are summarized below.

- Summary of project responsibilities
  - Analysis of telecommunications standards to support the development of product performance specifications and the development of related testing systems.
  - Technical consulting for the development of detailed product performance specifications, and the design and development of advanced telephony device prototypes.
  - Systems development including system architecture design, software and hardware development, system installation and training.
  - Field troubleshooting and consulting for customer's product issues.
  - Product design and engineering analysis.
  - Development of Intellectual Property (IP).
  - Development and delivery of technical training seminars regarding telecommunications product design and testing for North American and international customers.
- Projects highlights include:
  - VoIP telephone, gateway / Analog Terminal Adapter (ATA) test system
    - Developed system architecture, hardware, software, and user interfaces including features for controlling and analyzing VoIP sessions.
    - Integration and provisioning of system hardware components.
    - System features include control and analysis of:
      - SIP and SDP signaling for call set-up negotiation and signaling messages.
      - RTP for audio transmission and telephony event control.
      - Message headers, message field data, and message packet timing.
      - Analog port (FXS and FXO) signaling input/output.
    - Test system used for call set-up analysis, feature analysis (e.g., caller-ID, VMWI, voicemail), end-to-end signaling, timing

**James R. Bress**  
**Curriculum Vitae**

---

variations, and much more.

- Personal Sound Amplifiers Products (PSAP) testing
    - Contributor to the development of ANSI/CTA-2051 (January 2017) Personal Sound Amplification Performance Criteria. Standard for PSAPs / Over The Counter (OTC) hearing aids.
    - Developed test lab capabilities for testing PSAPs
  - IMS (Internet Multimedia Subsystem) services and hearing enhancement
    - Research and development of system designs and architectures for services delivery via IMS (Internet Multimedia Subsystem) based on 3GPP, IETF, and ITU standards and protocols including access, transmission, and billing.
      - Analysis of IMS architecture for the design of an audio enhancement feature.
      - Developed services concept for users connecting to an IMS network via SIP/SDP enabled devices to access service provided by application servers.
      - Application servers service logic used to enhance the audio of a VoIP session by inserting a custom media gateway feature in the media path to modify the audio based on the user's hearing impairment parameters.
      - Audio parameters derived from research and data from parent project for reliable and efficient hearing aid and cochlear implant tuning which was based on intelligibility testing and scoring.
      - Media gateway with added features to provide the audio enhancements applied to the speech signal coded in the transmission codec (voice coder).
    - Analysis and development of service delivery for mixed mode networks using IMS and AIN interfaces and components.
    - Analysis of service delivery to mobile devices including issues related to connections of the mobile circuit switched (CS) network to the IMS packet switched (PS) network.
    - Named inventor for US Patent No. 9,020,621 "Network Based Media Enhancement Function Based on an Identifier".
  - Wireless handset protocol analysis and investigations
    - LTE / CDMA / GSM
    - Analysis using R&S CMW-500 protocol analyzer.
    - Developed RF testing interface and environment.
    - Developed scripted tests for protocol features analysis.
  - Microsoft's Skype for Business (fka: "Lync") device test lab
    - Audio device testing program using AST's audio and acoustics test lab (see below).
    - Video camera test lab developed including integrating hardware, software, fixtures, and testing environment (controlled light room) for testing of video cameras (e.g. webcams).
  - Microsoft's "Response Point" IP-PBX system requirements and test lab
-

**James R. Bress**  
**Curriculum Vitae**

- 
- Development of detailed performance and testing specifications, and the development of custom testing capabilities for each system component:
    - VoIP telephony devices (handset, headset, speakerphone).
    - VoIP gateways (FXO/PSTN and FXS/ATA-Analog).
    - System base controller (including SIP server, proxy, registrar, and voicemail server).
  - Microsoft's customer's installations troubleshooting and consulting.
  - Audio and acoustics telephony test lab
    - Integration of hardware, software, test fixtures, and physical testing environments.
    - Standard/basic tests including frequency response, amplitude, volume control, noise, distortion, stability.
    - Advanced tests including terminal coupling loss (TCLw), echo cancellation (line and acoustic), noise suppression / cancelation, speech quality.
    - Anechoic room and semi-reverberant room test environments set up and qualified.
    - Speech recognition testing (e.g. Cortana) for multiple device types (laptops, tablets, etc.).
    - Subjective testing.
  - Thomson Consumer Electronics General Telephone Design Specifications
    - Drafted and updated complete library of Thomson's detailed feature, performance, and testing requirements provided to OEMs (1000's of pages).
    - Consulted with Thomson engineers and OEMs for product design details and testing requirements.
    - Comprehensive product performance testing services for Thomson's OEMs.
  - TSA-6000® telephone signal recording and analysis system
    - Developed system architecture, hardware, and software including features for signal recording and DSP analysis and reporting of telephony signals, events, states, and protocols.
    - Design of feature-rich graphical user interfaces.
    - Ongoing project operations include the manufacture and sale of TSA-6000® systems which started in 2003.
    - Named inventor for U.S. Patent No. 7,076,031 "System and Method for Telephone Signal Collection and Analysis."
    - Human factors testing for user interfaces.
  - Automated Range Test (ART™) system
    - Developed system architecture, hardware, software, and user interfaces.
    - System used to test the RF range of a cordless telephone by applying audio signals to the telephone's microphone (send path) and line (receive path) interfaces while varying the (simulated) distance between the cordless handset and its associated base.
    - Control of RF path attenuation using probes and computer controlled RF attenuators.
-

<p style="text-align: center;"><b>James R. Bress</b> <b>Curriculum Vitae</b></p>
--

- 
- Separately analyze the telephone's transmit and receive audio signals in real time to determine a quality factor used to calculate when the simulated distance has caused the handset - base communications link to degrade below a configured threshold.
  - Audio files are also recorded for subsequent analysis.
  - ART™ used in house at AST and also sold to key AST customers including installation and on-site training.
  - Human factors testing for user interfaces.
  - Automated Caller-ID test system (ATAS™)
    - Developed system architecture, hardware, software, and user interfaces.
    - Development and integration of:
      - DSP based signal simulations.
      - Telephone line simulation and control.
      - Vision system for automatic pass / fail analysis. Included OCR (optical character recognition), light indicator detection, and pattern matching.
      - Database for storing results and elaborate reporting.
    - ATAS™ used in house at AST and also sold to key AST customers including installation and on-site training.
    - Human factors testing for user interfaces.
  - Automated Stutter Dialtone Detection test system
    - Developed system architecture, hardware and software.
    - Development and integration of:
      - DSP based signal simulations.
      - Telephone line simulation and control.
      - Developed robotic interface for telephone push-button and switch-hook control using custom developed electrical / mechanical hardware and software control with feedback.
      - Interface and control of line conditions and computer controlled light sensor.
      - Database for storing results and elaborate reporting.
    - System used in house at AST.
  - ADSL test labs development and operation
    - ADSL splitters and filters.
    - ADSL signaling impact on other out-of-band signaling equipment.
    - ADSL physical layer testing of integrated gateways (test plans).
  - Common-Mode Noise test system
    - Developed system architecture, hardware and software.
    - Development and integration of:
      - DSP based signal simulations.
      - Telephone line simulation and control.
      - Test parameter configurations based on Bell System Technical Journal (BSTJ) published field test results.
    - System used in house at AST.
  - Network Call Generator system (for Telcordia)
    - Developed system architecture, hardware, software, and user interfaces.
-



**James R. Bress**  
**Curriculum Vitae**

- 
- Prototype to support demonstrations of Telcordia's: "1 Million Calls Per Minute" emergency notification project. Notifications via voice and/or text messaging.
  - Integration of telephone call control hardware and software and database.
  - Delivered and installed system and trained Telcordia management and sales teams.
  - Telcordia Analog Display Services Interface (ADSI)
    - Development of a standardized interface between an ADSI telephone and a Computer Telephony Integration Signaling Unit (ACTISU).
    - ACTISU unit was designed to connect in the network and communicate with an AIN (Advanced Intelligent Network) node.
    - System designed to work in conjunction with class-5 end-office switching systems (e.g., AT&T 5-ESS and Nortel DMS-100) to support the development of new consumer telephony services.
    - Named inventor for US Patent No. 5,570,420 "Customer premise equipment network integrator."
  - Seminars delivered to multiple companies / organizations
    - Alcatel (Paris, France)
    - Belco Telecom Products (Seoul, Korea)
    - HLAA (Hearing Loss Association of America) (Delivered in multiple US sites)
    - Inventec Electronics (Penang, Malaysia; Nanjing China)
    - Motorola (Austin, TX)
    - NASRA (National Association for State Relay Administration) (Albuquerque, NM)
    - Nortel (Calgary, Canada)
    - Philips Semiconductors (Eindhoven, The Netherlands)
    - Rayson Electronics (Taipei, Taiwan)
    - TEDPA (Telecommunications Equipment Distribution Programs Association) (Delivered in multiple US sites)
    - Thomson Consumer Electronics (Paris, France; Indianapolis, IN)
    - Uniden (Tokyo, Japan)

From: 1995  
To: Present  
Organization: AST Technology Labs, Inc.  
Title: President, Chief Technical Officer, and Founder  
Summary: AST Technology Labs Inc. provides services to the telecommunications industry including product testing and reporting, product design engineering and development consulting, and systems development (including software and hardware).  
AST is also involved in standards development and provides leadership for the

---

**James R. Bress**  
**Curriculum Vitae**

---

Telecommunications Industry Association (TIA).

AST's list of clients includes telecommunications service providers, telephone equipment manufacturers, retail and institutional equipment buyers, semiconductor manufacturers, and other test labs.

Mr. Bress's responsibilities include:

- Chairman of the Telecommunications Industry Association (TIA) TR-41 engineering committee (telephone performance standards) (2015 – Present) and chairman / vice-chairman of the TIA TR-41.3 sub-committee (telephone performance standards) (2000 – 2015).  
Responsibilities include
    - Management of standards development
    - Organize and officiate meetings
    - Liaison to other telecommunications standards organizations including ETSI, ITU, IETF, and IEEE.
    - Consultant and point of contact for the FCC (Federal Communications Commission) regarding telecommunications and accessibility standards.
  - Telephony test systems design and development including authoring of overall system architectures, software architectures, software, hardware, and user interfaces (GUI).
  - Development and operation of test labs:
    - VoIP telephone computer telephony devices for including audio and acoustics, interfacing and signaling, and feature operations.
    - Unified Communications (UC) computer telephony devices (handsets, headsets, speakerphones, tablets, mobile devices, and webcams) audio and video.
    - Microsoft's "Skype for Business" audio and video device certification program authorized by Microsoft.
    - Mobile handsets and devices including audio and acoustics and feature operations. Testing GSM, CDMA, WCDMA (UMTS), and LTE (4G) devices. Integration of R&S CMU200 and R&S CMW500 base station simulators with audio and acoustics test system.
    - VoIP gateways and Analog Terminal Adapters (ATA).
    - Analog interface telephone devices including Caller-ID, telephone line electrical and signaling interfacing, audio and acoustics, environmental performance testing (ESD, lightning, drop, AC power), Radio Frequency Immunity (RFI), cordless telephone (range, battery charging, operations), and other specialized features performance testing.
    - Set-Top-Box telephone interface specified for DirecTV's partners/vendors.
    - Amplified telephones.
    - Hearing Aid Compatibility (HAC) telephone handsets.
    - Telephone answering machine and IP based voicemail systems.
  - Design and development of professional test reports for testing lab services.
-

<b>James R. Bress</b> <b>Curriculum Vitae</b>
--

- 
- Development of telecommunications product specifications and prototypes.
  - Field troubleshooting and consulting for AST customer's product issues.
  - Protection of AST's intellectual property through patent development and applications.
  - Business development, client development, contracts, personnel, and corporate systems.
  - Testing services for conformance to standards including TIA, Bellcore, IEEE, ITU, ETSI, 3GPP, and others, for telephony products and interfaces
  - Development of product and system prototypes based on customer's requirements
    - System architecture design
    - User interface design (GUI) and software prototyping
    - Software design, implementation, and test
    - Hardware design, implementation, integration, and test
    - Product test plan development

#### AST's Test Systems Development Projects

AST performs systems development including integration of vision systems, database systems, RF control systems, audio control systems, signaling and interface hardware and user interface controls (GUI). Test systems developed include:

- VoIP gateway signaling and features test system
- Unified Communications device testing labs (audio and video)
- Telephone acoustic test system (VoIP, Mobile, Analog)
- Automated Caller-ID testing system (ATAS)
- Automated Cordless Telephone Range test system (ART)
- Automated RFI (Radio Frequency Interference) test system (ARFI)
- Common-mode noise test system
- Automated Stutter Dialtone Detection test system
- Telephone signal capture and analysis system (TSA-6000®) (patented)

From: 1985

To: 1995

Organization: Bell Communications Research (Bellcore) (now known as Telcordia)

Title: Senior Systems Engineer, Member of the Technical Staff (MTS)

Summary: Caller-ID / ADSI / AIN Telephone Features Related Projects

- Author of Bellcore Caller-ID and ADSI (Analog Display Services Interface) network signaling and telephone requirements and testing documents.
  - Analysis of class-5 (end office) switching systems capabilities including the AT&T 5-ESS, Nortel DMS-100, and Siemens EWSD. Analysis was for the development of new telephony services.
  - Screen phone (smart phone) requirements, system architectures, and software development including server-to-terminal protocols, signaling, and information display requirements (display mapping rules). The terminal display requirements were based on a "logical display" (vs. physical display) and "soft-keys" definition
-

<b>James R. Bress</b> <b>Curriculum Vitae</b>
--

---

allowing for an open terminal display architecture including the use of hierarchical presentation of options.

- User interfaces prototyping and effectiveness analysis.
- Research and analysis of touch-screen technologies to select touch-screen type to be integrated in prototype screen phones (smart phones).
- Telephony features enabled by ADSI included Visual Voice Mail (VVM), context sensitive soft-keys to activate CLASS services (e.g., automatic recall / callback), called party telephone directories, user-to-user signaling for messaging, and access to information services (e.g., remote banking, stock quotes, enhanced IVR).
- Managed and developed Bellcore's Caller-ID / ADSI conformance test lab including hardware and software development.
- Subject Matter Expert for Caller-ID / ADSI signaling and protocols.
- Developed and delivered Caller-ID / ADSI seminars to US and international telcos and telephone product manufacturers.
- Human factors testing for user interfaces and customer acceptance of tone levels, frequencies and call interruptions.

#### Information Gateway Projects

- Leader of the development team for the "Information Gateway" which defined protocols between network-based servers and terminals for access of information, display of the information, and user input methods.
  - Developed demonstration of networked remote database access and transmission system for images stored with searchable characteristics parameters. Included development of data compression and error control used for transmission.
  - Demonstrated features included: graphical user interfaces (GUI) based access to information services, user-to-user signaling for messaging, text, voice, and imaging applications.
  - Researched and reported on the current state of the art for terminal display and mapping (information display rules) protocols including France Minitel, NAPLPS, AT&T Smart Phone, VT-100, and other terminal protocols.
  - Developed mass market and network service platform prototypes (software development and hardware integration) using PSTN, ISDN, X.25, and TCP/IP networks.
  - Developed service architectures, requirements, and prototypes for Advanced Intelligent Network (AIN) services deployed in a Signaling System #7 (SS7) network.
  - Developed, tested, and applied human factors analysis techniques to GUI for the display and access to distributed information (pre-cursor to web browsers).
  - Developed software interfaces and protocols for a layered communications system architecture including layer-1 (physical), layer-2 (data link), and layer-3 (network) with emphasis on ISDN (Q.921 and Q.931) and Ethernet connectivity.
  - Software development and hardware integration for integrated ISDN, X.25, and POTS messaging services.
  - C-language software development under UNIX / Windows / DOS.
  - Assembly language development.
-

**James R. Bress**  
**Curriculum Vitae**

- Developed hardware and software for PC based analog and digital test equipment.

Corporate Fax – Email Server Project

- Chief architect, project manager, and software developer.
- Developed integrated messaging platforms (architecture, software, database, hardware) for e-mail, fax, voice, and directory services.
- Developed new features for Bellcore's corporate fax / email server system. Included integration of fax-to-email and email-to-fax- for incoming and outgoing faxes through corporate email system.
- Human factors testing for user interfaces.

Bell Operating Company Operations Systems Development and Management

- Developer, tester, and analyst for the Bellcore ST&S (Software Technologies and Systems) business unit in the FACS (Facility Assignment and Control Systems) group including database management and configuration.
- Developed code and managed database system components for PREMIS (PREmise Information System), SOAC (Service Order Analysis & Control), and LFACS (Loop Facility Assignment and Control System) which are all components of the FACS.
- Managed and performed FACS systems communications network development and software installation and testing.
- RDBMS performance analysis and development.

From: 1990  
To: 1993  
Organization: Sole Proprietor  
Title: Owner / Software and Systems Developer  
Summary: 

- Development of database system for entertainment/tour companies' customer databases including schema architecture and design, coding, report development, and remote access.
- Developed system specifications, developed all code, and added features as requested by customers.

From: 1982  
To: 1984  
Organization: Process Systems Inc.  
Title: Engineering Technician  
Summary: 

- Technical writing for energy management field located equipment and host system software and user manuals
- Developed test equipment and procedures for field located equipment and host systems

**James R. Bress**  
**Curriculum Vitae**

---

---

**Litigation and Intellectual Property Expert and Consultant Experience**

---

---

- Patent Litigation: Expert witness and consultant
    - Infringement (plaintiff cases, and defendant cases).
    - Invalidity (supporting invalidity position cases, and defending validity cases).
    - Experience includes:
      - Trial testimony
      - Depositions
      - Expert reports and expert rebuttal reports
      - Declarations
      - Claim chart development and analysis
      - Prior art searches
      - Prior art analysis
      - Consulting with attorneys
      - 30 (b)(6) depositions support
      - Research
      - Systems analysis
      - Software code review and analysis
  - Patent Prosecution Cases
    - Inter partes reviews (IPR)
    - Inter partes re-examination
    - Ex-parte re-examination
    - Experience includes:
      - IPR depositions.
      - Engagements with third party requesters and patent owners.
      - Multiple cases regarding telecommunications patents.
      - Expert declarations.
      - Analysis of prior art.
      - Search and identification of prior art (including patents and technical publications).
      - Claim chart development and analysis.
      - USPTO panel interview.
      - In-depth study into the technical and legal basis for obviousness including precedent setting cases and the MPEP (Manual of Patent Examining Procedures).
  - TCPA (Telecommunications Consumer Protection Act) Litigation: Expert witness and consultant
    - Deposition.
    - Expert declaration development.
    - VoIP based telephone system analysis including operations, functions, and features.
    - Mobile telephone service call connections and billing records analysis of Call Detail Records obtained from a subpoena of plaintiff's AT&T mobile account.
    - Consulting regarding FCC rules and regulations related to the TCPA.
- 
-

<p style="text-align: center;"><b>James R. Bress</b> <b>Curriculum Vitae</b></p>
--

- Pre-Litigation Support: Expert consultant for the analysis of patent claims and accused products
  - Patent claims infringement review including evaluation and analysis of accused products and systems to determine operational features and methods.
  - Patent claims validity evaluation including prior art searches.
  - Consulting with attorneys to explain technical aspects of claims and patent specifications.
  - Product analysis including disassembly, parts inspection analysis, software code review, and research.
- Vermont PUC (Public Utility Commission) VoIP Service Hearings
  - Purpose: Determine if VoIP is a Telecommunications Service Vs. Information Service.
  - Consulting and response to VT-PUC RFP questions.
  - Analysis of VoIP services connectivity and configurations (e.g., Comcast VoIP service).
  - Analysis of issues related to “Nomadic Vs. Fixed VoIP”.
  - Analysis of FCC telecommunications regulations and declaratory rulings.

<p style="text-align: center;"><b>JAMES BRESS</b> <b>LITIGATION AND PATENT PROSECUTION</b> <b>CASES SUMMARY</b> <b>(2005 to Present)</b></p>
--

- **Total Cases: 32**
- **Total Deposition Testimony: 10**
- **Total Trial Testimony: 2**
- **ACTIVE PATENT CASES: LITIGATION**
  - 1 case: consulting for non-infringement and invalidity
- **CLOSED PATENT CASES: LITIGATION**
  - 2 cases to trial: expert reports, depositions (3), trial (2)
  - 3 cases to depositions: expert reports, depositions (3)
  - 2 cases: expert reports
  - 1 case: expert declarations
  - 2 cases: expert claim construction declarations and rebuttal declarations
  - 8 cases: consultant
- **CLOSED PATENT CASES: USPTO / PTAB**
  - 3 IPRs: expert declarations, depositions (3)
  - 2 IPRs: expert declarations (cases settled before depositions)
  - 2 IPRs: POPR (cases settled before expert declarations)
  - 1 inter partes reexam: expert declarations
  - 1 ex parte reexam: expert declarations, patent examiner interview
- **CLOSED OTHER LITIGATION**
  - 1 TCPA (Telecommunications Consumer Protection Act): expert report, deposition (1)
  - 1 product liability case: consultant

(case details may be provided upon request)

**James R. Bress**  
**Curriculum Vitae**

---

---

**Intellectual Property (IP) Consulting**

Research and documentation to prepare patent applications to protect the intellectual property of a start-up company: Audigence Inc. Patent applications were in the fields of telecommunications and improvements for hearing and speech technologies.

**Expert Testimony During the Previous Four Years**

The following is the expert testimony that I have provided in the last four years (December 2017 to December 2021):

- TrustID, Inc. v. Next Caller Inc., Case No. 1:18-cv-00172 (Delaware District Court): deposition testimony (December 2019) and trial testimony (July 2021)

**Professional Affiliations**

- Chairman (2015 to present), Telecommunication Industry Association (TIA) TR-41 engineering committee for standards related to communications product performance and accessibility.
- Chairman (2000 to 2007), and from 2011 to 2015, TIA TR-41.3 engineering sub-committee for standards related to communications product performance and accessibility.
- Vice-Chairman (2007 to 2011) TIA TR-41.3 engineering sub-committee for standards related to communications product performance and accessibility.
- Chairman (2017 to present) Bluetooth® High Quality Audio Study Group.
- Member: IEEE
- Tau Beta Pi

**Industry Awards**

**ANSI Meritorious Service Award (October 2018)**

ANSI (American National Standards Institute)

Recognition for outstanding contributions to the U.S. voluntary standardization system and enabling ANSI to attain the objectives for which it was founded.

**National Access Award (June 2018)**

HLAA (Hearing Loss Association of America)

Recognition for telecommunications accessibility standards leadership on a national level of impact.



**James R. Bress**  
**Curriculum Vitae**

---

**Patents & Publications**

<u>US Patent No.</u>	<u>Title</u>
5,519,774	Method and system for detecting at a selected station an alerting signal in the presence of speech
5,570,420	Customer premise equipment network integrator
7,076,031	System and Method for Telephone Signal Collection and Analysis
9,020,621	Network Based Media Enhancement Function Based on an Identifier

TIA Publications (Chairman, Editor, or Major Contributor)

1. ANSI/TIA-920.110 *Transmission Requirements for Wideband Digital Wireline Telephones with Handset* **(VoIP – Wideband)**
  2. ANSI/TIA-920.120 *Transmission Requirements for Wideband Digital Wireline Telephones with Speakerphone* **(VoIP – Wideband)**
  3. ANSI/TIA-920.130 *Transmission Requirements for Wideband Digital Wireline Telephones with Headset* **(VoIP – Wideband)**
  4. ANSI/TIA-810 *Transmission Requirements for Narrowband Digital Telephones* **(VoIP – Narrowband)**
  5. ANSI/TIA-5050 *Telecommunications Communications Products Receive Volume Control Requirements for Wireless (Mobile) Devices* **(Mobile)**
  6. ANSI/TIA-4953 *Amplified Telephone Measurement Procedures and Performance Requirements* **(Accessibility)**
  7. ANSI/TIA-1083 *Handset Magnetic Measurement Procedures and Performance Requirements* **(Accessibility: Hearing Aid Compatibility)**
  8. ANSI/TIA-1063 *Analog Telephone Port Requirements for Packet-based User Premises Terminal Adapters* **(VoIP – Gateways)**
  9. ANSI/TIA-777 *Caller Identity and Visual Message Waiting Indicator Equipment Performance Requirements* **(Caller-ID)**
  10. ANSI/TIA-855 *Stutter Dial Tone Detection Device Performance Requirements*
  11. ANSI/TIA-470.310 *Cordless Telephone Range Measurement Procedures*
  12. ANSI/TIA-470.320 *Cordless Telephone Operation and Feature Performance Requirements*
  13. ANSI/TIA-470.330 *Digital Telephone Answering Device Performance Requirements*
  14. ANSI/TIA-470.110 *Handset Acoustics Performance Requirements for Analog Telephones*
  15. ANSI/TIA-470.120-C *Transmission Requirements for Analog Speakerphones*
  16. ANSI/TIA-470.130 *Transmission Requirements For Analog Telephones with Headsets*
  17. ANSI/TIA-470.210 *Resistance and Impedance Performance Requirements for Analog Telephones*
  18. ANSI/TIA-470.220 *Alerter Acoustics Performance Requirements for Analog Telephones*
  19. ANSI/TIA-470.230 *Network Signaling Performance Requirements for Analog Telephones*
-

**James R. Bress**  
**Curriculum Vitae**

---

---

**Bellcore Publications (Authored or Co-Authored)**

1. Bellcore SR-3363 (Issue 1, 1995) *Testing Guidelines for Switches and Servers With Analog Type 1, 2, and 3 Interfaces as Described in SR-INS-002726*  
[Caller-ID / ADSI Server (Screen Phone / Smart Phone) Network Testing Recommendations]
2. Bellcore SR-3004 (Issue 2, 1995) *Testing Guidelines for Analog Type 1, 2, and 3 CPE as Described in SR-INS-002726*  
[Caller-ID / ADSI CPE (Screen Phone / Smart Phone) Testing Recommendations]
3. Bellcore GR-30-CORE (Issue 1, 1994) *LSSGR: Voiceband Data Transmission Interface Section 6.6*  
[Caller-ID / ADSI CPE (Screen Phone / Smart Phone) Network Signaling Requirements]
4. Bellcore TR-NWT-001401 (Issue 1, 1993) *Visual Message Waiting Indicator Generic Requirements*
5. Bellcore SR-TSV-002568 (Issue 1, 1993) *Speech Test Tapes for Customer Premises Equipment Signal Detectors*  
[Bellcore Caller-ID Speech Test Tapes]
6. Bellcore SR-TSV-002578 (Issue 1, 1993) *A Method and Apparatus for Detecting a Dual Tone Signal in the presence of Speech*
7. Bellcore SR-INS-002726 (Issue 1, 1993) *Classes of Customer Premises Equipment*
8. Bellcore TR-NWT-001273 (Issue 1, 1992) *Generic Requirements for an SPCS to Customer Premises Equipment Data Interface for Analog Display Services*  
[ADSI Network Signaling and Server Interface Requirements]
9. Bellcore SR-INS-002461 (Issue 1, 1992) *Customer Premises Equipment Compatibility Considerations for the Analog Display Services Interface*  
[ADSI Telephone Terminal (Screen Phone / Smart Phone) Signaling and User Interface Display Mapping Rules Recommendations]
10. Bellcore SR-TSV-002476 (Issue 1, 1992) *Customer Premises Equipment Compatibility Considerations for the Voiceband Data Transmission Interface*  
[Caller-ID / ADSI Screen Phone / Smart Phone Signaling Recommendations]

**Contributor to Other Publications**

1. ANSI/CTA-2051 (January 2017) *Personal Sound Amplification Performance Criteria*